SPECIFICATION

LCD Module User Manual

MODULE NO.: GD717T

REV NO.: 1.01 -TS70RD01

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Catalogue

Content ····· 2

Version ····· 3

1. Profile ····· 4

2. Application ····· 4

3. Main Parameter ····· 4

4. Block Diagram，Product Picture ····· 5

5. Wiring Diagram ····· 6

6. Connection Definition of Driver Board ····· 6-8

7. Structural Diagram ····· 9-10

8.7.0"TFT- LCD PANEL Inspection Standard ····· 11-12

9. Packing ····· 13

10. Attention ····· 13

Version

Date	Version	Content
2007-3-24	VER:1.00	The First Version
2008-2-19	VER:1.01	The Second Version

1. Profile：

GD717T VER:1.01-AT70N07 TFT LCD module is composed by GD717T driver board and 6.95” Tian Ma panel TS70RD01. With video signal input, it also can with mirror image function, with PAL and NTSC system format(auto switch). It adopt IC to control power supply and backlight(LED backlight).

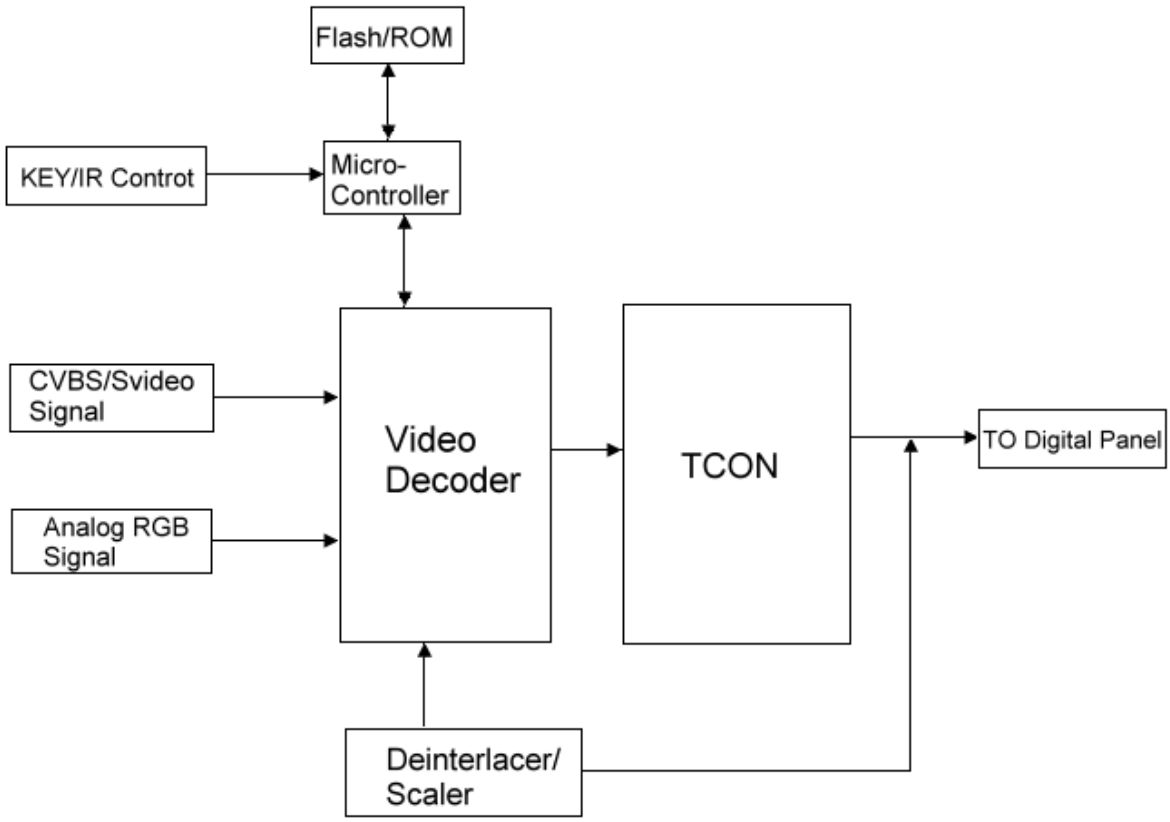
2. Application：

- Office electronic equipment
- Apparatus & measurement appliance
- Machinery
- Audiovisual （Display for car、Portable DVD、Long-distance terminal、LCD TV）
- Home appliance （Video door phone、Video telephone）

3.Main Parameter：

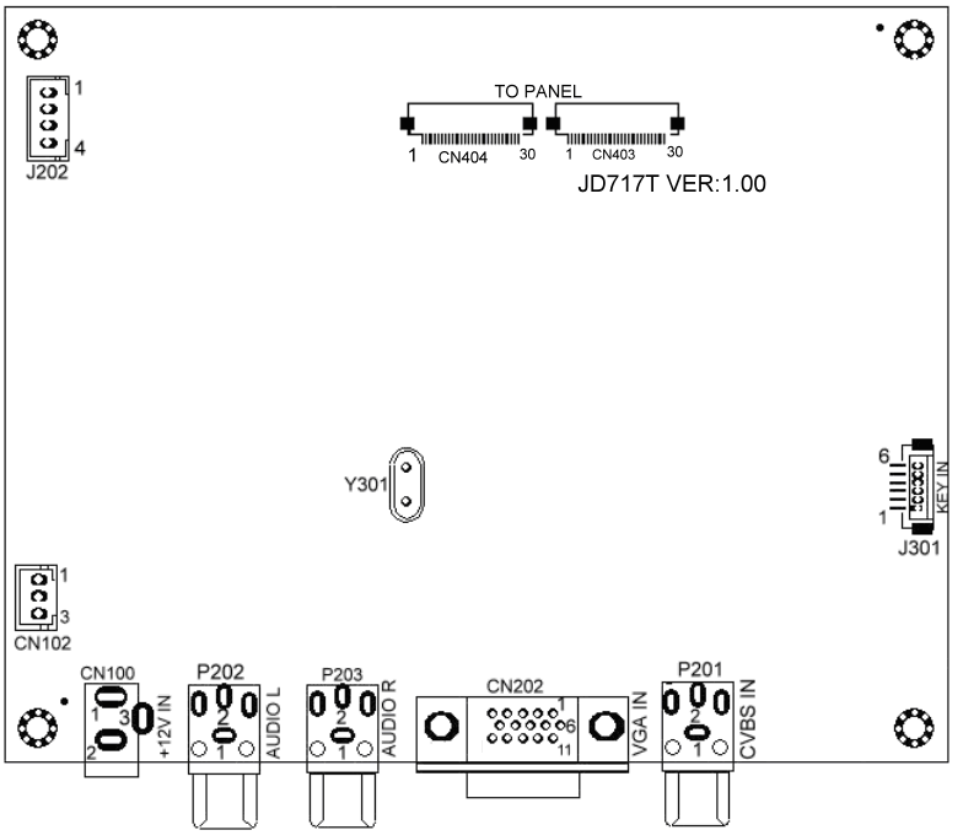
- Product Name：6.95"TFT LCD Module
- Model：GD717T Ver:1.01-TS70RD01
- Display：6. 95″(Tian Ma)
- Back light：LED
- Pixel：800*480
- Vision bound:（U/D/L/R）:（60/60/70/70）
- Brightness：400 cd/m^2
- System format：PAL/NTSC(Automatic switch)
- Signal input：1.0Vp-p 75 ohm
- Voltage input：DC 12V±25%　(12V　280mA±30mA)
- Dimension of LCD (mm)：157.2（W）× 82.32（H）
- Overall dimension of display (mm)：167（W）×93（H）×5.4（D）
- Structural dimension of PCB (mm)：139.9(W)×112.1（H）×15（D）
- Work temperature：-10~+60 ℃
- Relative humidity：5~95% RH
- Storage humidity：-20℃~+70℃

4. Block diagram:



GD717T TFT LCD Module's Picture：

5、Wiring Diagram:



6. DRIVING BOARD Connector Definition：

6.1 P201 connector definition

Pin No.	Symbol	I/O	Description	Remark
1	GND	-		
2	CVBS	I		

6.2 P202 connector definition

Pin No.	Symbol	I/O	Description	Remark
1	GND	-		
2	AUDIO L	I		

6.3 P203 connector definition

PIN NO.	symbol	I/O	description	Remark
1	GND	-		
2	AUDIO R	I		

6.4 CN202 Connector definition

Pin No.	Symbol	I/O	Description	Remark
1	VGA R	I		
2	VGA G	I		
3	VGA B	I		
4	NC			
5	GND	-		
6	GND	-		
7	GND	-		
8	GND	-		
9	+5V	O		
10	GND	-		
11	GND	-		
12	NC			
13	HS	I		
14	VS	I		
15	NC			

6.5 CN102 Connector definition

PIN NO.	SYMBOL	I/O	J201 Definition	REMARK
1	ON/OFF	O		①
2	GND	-		
3	+12V	O		

①高电平为开,低电平为关.

6.6 J301 Connector definition：

PIN NO.	symbol	I/O	definition	remark
1	+5V	O		
2	GND	-		
3	IR	I		
4	KEY1	I		
5	KEY2	O		
6	LED	O		

6.7 CN100 Connector definition:

引脚编号	符号	输入/输出	脚位定义说明	备注
1	+12V 输入	I	+12V 输入	
2	GND	-	地	
3	GND	-	地	

6.8 J202 Connector definition

PIN NO.	symbol	I/O	definition	Remark
1	L-OUT	O		
2	GND	-		
3	R-OUT	O		
4	GND	-		

6.9 CN404 Connector definition:

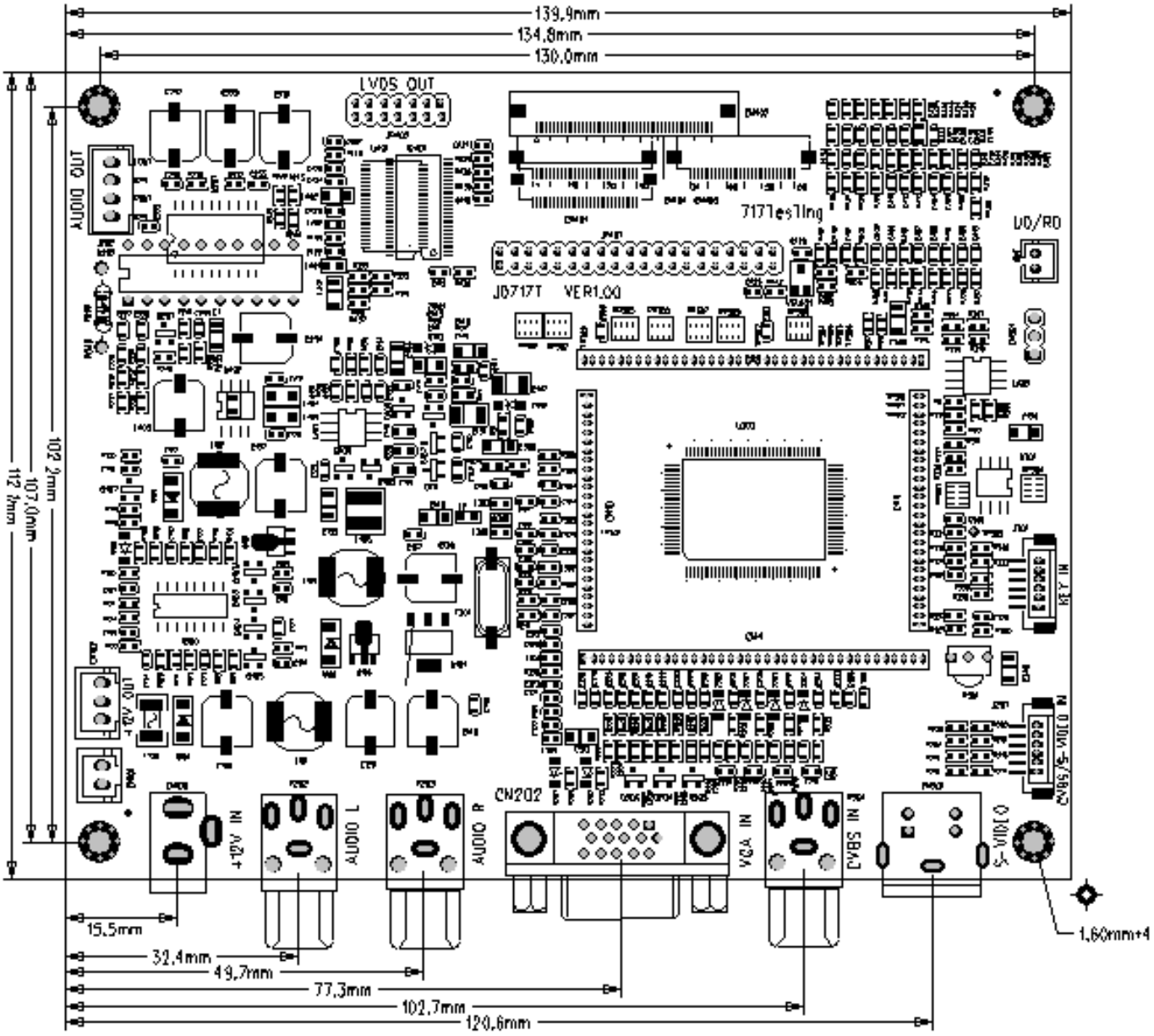
Pin	Symbol	I/O	Description	Remark
1	DIO1	I/O	horizontal start pulse signal	Note1,2
2	VSS1	P	ground	Note1
3	VDD1	I	power supply	
4	CLK	I	horizontal shift clock	
5	VSS1	P	ground	
6	R/L	I	right/left selection	Note2
7	R0	I	red data(LSB)	
8	R1	I	red data	
9	R2	I	red data	
10	R3	I	red data	
11	R4	I	red data	
12	R5	I	red data	
13	VSS1	P	ground	
14	G0	I	green data(LSB)	
15	G1	I	green data	
16	G2	I	green data	
17	G3	I	green data	
18	G4	I	green data	
19	G5	I	green data	
20	VSS1	P	ground	
21	B0	I	blue data(LSB)	
22	B1	I	blue data	
23	B2	I	blue data	
24	B3	I	blue data	
25	B4	I	blue data	
26	B5	I	blue data	
27	LD	I	load output signal	
28	REV	I	data invert control	
29	POL	I	polarity selection	
30	DIO2	I/O	horizontal start pulse signal	Note2

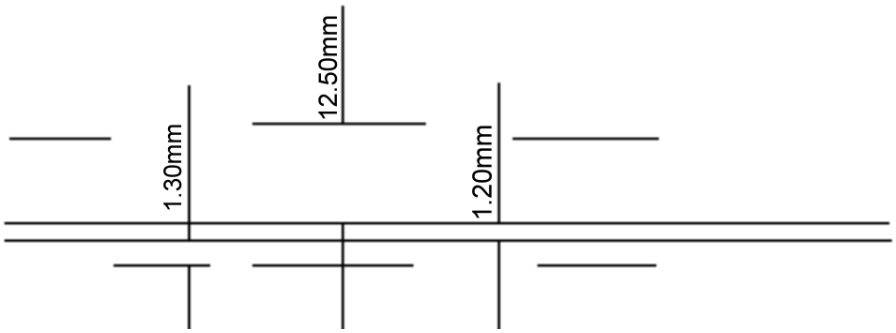
6.10 CN403 接口定义：

Pin	Symbol	I/O	Description	Remark
1	VSS2	P	ground	
2	V1	I	gamma voltage 1	
3	V2	I	gamma voltage 2	
4	V3	I	gamma voltage 3	
5	V4	I	gamma voltage 4	
6	V5	I	gamma voltage 5	
7	V6	I	gamma voltage 6	
8	V7	I	gamma voltage 7	
9	VSS2	P	ground	
10	V8	I	gamma voltage 8	
11	V9	I	gamma voltage 9	
12	V10	I	gamma voltage 10	
13	V11	I	gamma voltage 11	
14	V12	I	gamma voltage 12	
15	V13	I	gamma voltage 13	
16	V14	I	gamma voltage 14	
17	VSS2	P	ground	
18	VDD2	P	voltage for analog circuit	
19	VCOM	P	common voltage	
20	XON	I	NC	
21	OE	I	output enable	
22	U/D	I	up/down selection	Note2
23	CKV	I	vertical shift clock	
24	STVU	I/O	vertical shift pulse signal	Note2
25	STVD	I	vertical shift pulse signal	Note2
26	VGG	P	gate on voltage	
27	GND	P	ground	
28	VCC	P	voltage for logic circuit	
29	GND	P	ground	
30	VEE	P	gate off voltage	

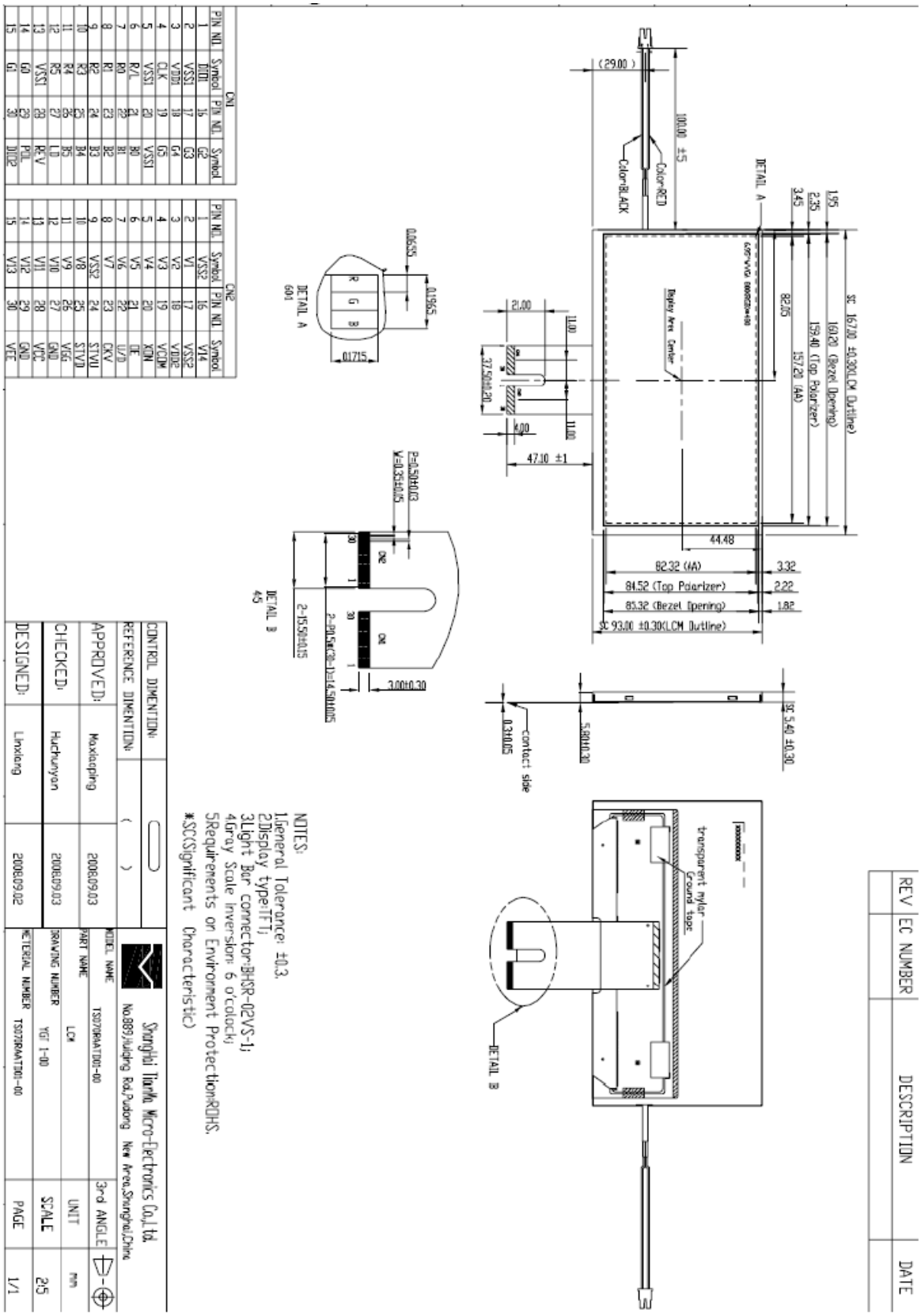
7. PCB

7.1 PCB：


139.9mm
134.8mm
130.0mm
102.2mm
107.0mm
112.7mm
LVDS OUT
AUDIO OUT
LCD/RD
JD717T VER1.00
CN202
+12V IN
AUDIO L
AUDIO R
VGA IN
CVBS IN
CVBS OUT
15.5mm
32.4mm
49.7mm
77.3mm
102.7mm
120.6mm
1.60mm+4


12.50mm
1.30mm
1.20mm

7.2 LCM：


SC 167.00 ±0.30(LCM Outline)
160.20 (Bezel Opening)
155.40 (Top Polarizer)
157.20 (AA)
82.85
100.00 ±5
(29.00)
Color:BLACK
Color:RED
DETAIL A
Display Area Center
44.48
82.32 (AA)
84.52 (Top Polarizer)
85.32 (Bezel Opening)
SC 93.00 ±0.30(LCM Outline)
3.32
2.22
1.82
47.10 ±1
37.50±0.20
21.00
11.00
4.00
5.80±0.30
SC 5.40 ±0.30
0.30±0.05
contact side
DETAIL B
transparent mylar
ground tape
DETAIL A
6:1
0.06(S)
0.19(S)
0.17(S)
P=0.50±0.03
W=0.35±0.05
2-1.55±0.05
3.00±0.30
DETAIL B
4:5
CN1
CN2
NOTES:
1.General Tolerance: ±0.3.
2.Display type:TFT.
3.Light Bar connector:BHSR-02VS-1.
4.Gray Scale Inversion: 6 o'clock.
5.Requirements on Environment Protection:ROHS.
*SCC(Significant Characteristic)
REV
EC NUMBER
DESCRIPTION
DATE
CONTROL DIMENTION:
REFERENCE DIMENTION:
APPROVED: Maxiaoping 2006.09.03
CHECKED: HuChunyan 2006.09.03
DESIGNED: Limxiang 2006.09.02
Shanghai Tianma Micro-Electronics Co.,Ltd.
No.889,Jiuliping Road,Pudong New Area,Shanghai,China
MODEL NAME: TS070RAAT001-00
PART NAME: LCM
DRAWING NUMBER: YGT 1-00
MATERIAL NUMBER: TS070RAAT001-00
3rd ANGLE
UNIT: mm
SCALE: 2:5
PAGE: 1/1

8. 6.95"TFT- LCD PANEL Inspection Standard:

Aim：Establishing the standard of PANLE for inspecting material & progress and for clients' inspection.

Scope： Apply to 6.95″TFT LCD

Content：

8.1. Inspection standard and method：

8.1.1. The method and determinant of inspecting the nick of panel of LCD：

8.1.1.1. Inspect vertically (or at 45 ° angle from left/right)under the light tube (the power is 20 W) in the distance of 30cm to the panel. If there is no nick , it is "OK". Otherwise "NG".

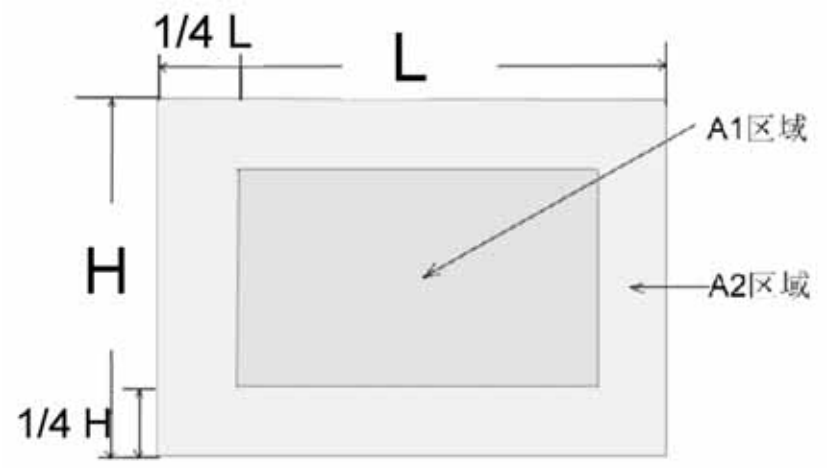
8.1.2. The method and determinative for black & white & color spots for the Panel of LCD：

8.1.2.1. Inspection methods

8.1.2.1.1. Black spots：under status of denote light， set the MASK of black spot inspection near the black spot then compare the big and small by eyes.

8.1.2.1.2. White & Color spots: under status of denote light, set the Mask of black spot inspection on the white spot(or color spot) then inspect them by eyes if it can hide.

8. 1. 2. 2. Division of LCD Panel



Remark：A1：The center of the available area for the picture

A2：The edge of the available area for the picture（around the central area）

8.1.3. Determinant Choice

Spot Diameter（mm）		Allowed Area	
		A1	A2
Black Spot	d≤0.15	Irrespective	Irrespective
	0.15<d≤0.3	4	4
	0.3<d≤0.5	2	3
	0.5<d<0.8	0	2
White or color spot	d≤0.15	Irrespective	Irrespective
	0.15<d≤0.3	3	3
	0.3<d≤0.5	1	2
	0.5<d<0.8	0	1

Remark: 1. Size: Average Diameter=（Max. Diameter + Min. Diameter）/2

2. Using information above as a standard in order to judge while the spot are dense.

3. Black & White spot：To judge the obvious spots through the change of voltage by comparison。

4. Total quantity of Black & white & color spot: A1+A2 ≤ 4。

9. Packing

TBD

10. Attention:

1. Voltage don't exceed upper limit.
2. The connector can't connect board in reverse, or will burn the board and influence the product.
3. Please don't touch it in order to keep your skin non-burn when you electrify the board(high voltage on the board).
4. 6.95"TFT LCD Panel is a electronic product, so you need to take anti-static measure when you operate it.
5. 6.95"TFT-LCD Panel is a glasswork, place carefully ,broken for fear.
6. The connection is "FPC", which connect 6.95"TFT-LCD panel with PCB, Please operate it carefully, in order to keep it well.
7. Don't touch the Pin of "variable resistor" when you adjust "VR", due to person have resistance,it influence the"VR" function if you touch it.